

Claims:

We claim:

1. A spun-bonded nonwoven fabric comprised of continuous multi-component fibers that are at least partially split along their length, wherein the spun-bonded nonwoven fabric exhibits improved aesthetic and performance characteristics, and wherein the improved aesthetic and performance characteristics are selected from the group consisting of flexibility, drape, softness, thickness, moisture absorption capacity, moisture vapor transmission rate, cleanliness, and combinations thereof.
2. The spun-bonded nonwoven fabric of claim 1, wherein the continuous multi-component fibers are comprised of fibers selected from the group consisting of polyester, polyamide, polyolefin, polyacrylic, polyaramide, polyurethane, polylactic acid, and combinations thereof.
3. The spun-bonded nonwoven fabric of claim 2, wherein the continuous multi-component fibers are comprised of polyamide and polyester, wherein the polyester is selected from the group consisting of polyethylene terephthalate, polytriphenylene terephthalate, polybutylene terephthalate, and combinations thereof, and wherein the polyamide is selected from the group consisting of nylon 6, nylon 6,6, and combinations thereof.
4. The spun-bonded nonwoven fabric of claim 3, wherein the continuous multi-component fibers are comprised of polyethylene terephthalate and nylon 6,6.
5. The spun-bonded nonwoven fabric of claim 4, wherein the continuous multi-component fibers are comprised of polyethylene terephthalate and nylon 6,6, wherein polyethylene

terephthalate comprises approximately 65% of the continuous multi-component fibers, and wherein nylon 6,6 comprises approximately 35% of the continuous multi-component fibers.

6. The spun-bonded nonwoven fabric of claim 1, wherein the improved aesthetic and performance characteristics are flexibility and drape, wherein flexibility and drape are determined by Bending Stiffness (B) when tested according to the Kawabata Pure Bending Tester (KES FB2), and wherein the spun-bonded nonwoven fabric achieves a fabric weight-to-Bending Stiffness ratio of about 187 or greater.
7. The spun-bonded nonwoven fabric of claim 1, wherein the improved aesthetic and performance characteristics are softness and thickness, and wherein the spun-bonded nonwoven fabric achieves an increased thickness of about 10 percent or greater when tested using a Thwing-Albert VIR Electronic Thickness Tester according to ASTM D 1777-96.
8. The spun-bonded nonwoven fabric of claim 1, wherein the improved aesthetic and performance characteristic is moisture absorption capacity, and wherein the spun-bonded nonwoven fabric achieves an increased moisture absorption capacity of about 10 percent or greater.
9. The spun-bonded nonwoven fabric of claim 1, wherein the improved aesthetic and performance characteristic is moisture vapor transmission rate, and wherein the spun-bonded nonwoven fabric achieves an increased moisture vapor transmission rate of about 8 percent or greater.

10. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric has a fabric weight of about 160 g/m².

11. The spun-bonded nonwoven fabric of claim 10, wherein the improved aesthetic and performance characteristics are softness and thickness, and wherein the thickness is about 24.0 mils or greater when tested using a Thwing-Albert VIR Electronic Thickness Tester according to ASTM D 1777-96.

12. The spun-bonded nonwoven fabric of claim 10, wherein the improved aesthetic and performance characteristic is moisture absorption capacity, and wherein moisture absorption capacity is about 3.75 g/ml or greater.

13. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric has a fabric weight of about 100 g/m².

14. The spun-bonded nonwoven fabric of claim 13, wherein the improved aesthetic and performance characteristic is moisture vapor transmission rate, and wherein the rate of moisture vapor transmission is about 675 g/m² or greater.

15. The spun-bonded nonwoven fabric of claim 1, wherein the fabric is undyed.

16. The spun-bonded nonwoven fabric of claim 1, wherein the fabric is dyed.

17. The spun-bonded nonwoven fabric of claim 16, wherein the dye imparts color to the exterior fibers of the fabric and further penetrates the dense fabric to color the interior fibers of the fabric, and wherein the dyed spun-bonded nonwoven fabric exhibits a decrease in the

difference between the dye concentration present on the exterior fibers of the fabric and the dye concentration present on the interior fibers of the fabric.

18. The spun-bonded nonwoven fabric of claim 17, wherein the dyed spun-bonded nonwoven fabric exhibits increased uniform dyeing throughout the fibers of the fabric.

19. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric is incorporated into an article of apparel.

20. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric is incorporated into an article of bedding.

21. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric is incorporated into an article of residential upholstery.

22. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric is incorporated into an article of commercial upholstery.

23. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric is incorporated into an article of automotive upholstery.

24. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric is incorporated into an article of napery.

25. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric is incorporated into an article of drapery.

26. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric is incorporated into an article for residential cleaning cloths.

27. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric is incorporated into an article for commercial cleaning cloths.

28. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric is incorporated into an article for cleanrooms applications.

29. The spun-bonded nonwoven fabric of claim 1, wherein the spun-bonded nonwoven fabric is incorporated into an article for allergy barrier applications.